APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/424,760	02/03/2000	SERGEY KONSTANTINOVITCH GORDEEV	57361-57793	8547

7590   06/14/2004

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EXAMINER
HENDRICKSON, STUART L

ART UNIT	PAPER NUMBER
1754	

DATE MAILED: 06/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
424760	Gordon
Examiner	Group Art Unit
Nicholson	114

—Th MAILING DATE of this communication appears on the cover sheet beneath th correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE __3__ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

☒ Responsive to communication(s) filed on __4/1/03__

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) __18-40__ is/are pending in the application.

Of the above claim(s) __18-23__ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) __24-40__ is/are rejected.

☐ Claim(s) _____ is/are objected to.

☒ Claim(s) __18-40__ are subject to restriction or election requirement

Application Papers

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ Th drawing(s) filed on _____ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ Th oath or declaration is objected to by the Examiner.

Pri rity under 35 U.S.C. § 119 (a)–(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)–(d).

☐ All ☐ Some* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____.

☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____.

Attachment(s)

☐ Information Disclosure Stat ment(s), PTO–1449, Paper No(s). _____

☐ Notice of Reference(s) Cited, PTO–892

☐ Notice of Draftsperson's Patent Drawing R view, PTO–948

☐ Int rview Summary, PTO–413

☐ Notice of Informal Patent Application, PTO–152

☐ Other _____

Office Action Summary

The text of those sections of Title 35, U.S. Code not included in this action can
be found in a prior Office action.

Claim 28 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for
failing to particularly point out and distinctly claim the subject matter which applicant
regards as the invention.

In claim 28, there is no way to determine what the predetermined volume of transport
pores is.

Claims 24-40 are rejected under 35 U.S.C. 112, first paragraph, as containing subject
matter which was not described in the specification in such a way as to reasonably
convey to one skilled in the relevant art that the inventor(s), at the time the application
was filed, had possession of the claimed invention.

A) The basis for selecting the density of carbon is not given. Carbon has many forms,
each having different density. There is no disclosure of which to pick.

B) The equation found in claim 24 implies that there cannot be a continuum of
porosities for a carbide; that all SiC (for example) will have the same porosity, because
the numbers used to derive the porosity are invariant (notwithstanding the comment in
A). Thus, according to applicants model, there can only be one (or two, if one accepts
that two different values can be used for 'density of carbon') different pore distributions
of SiC because the porosity is said to be related to the density of 'carbon' and the
weight of SiC. However, Goldberger column 7 lists logical and rational reasons why SiC
can in fact have widely differing porosities, even though it is still SiC. When a theory (ie,
the instant equation) contradicts known facts, the theory is summarily discarded. To say
that one picks an element off the periodic table, and the act of doing so will determine
the porosity of the ultimate final product *because one has also wished for a certain*

porosity is to place the proverbial cart before the horse, and is prima-facie illogical, even absent the Goldberger reference. Suppose one 'desires' a certain porosity yet picks an element which according to the formulas cannot produce it, what does one do? And what if one finds that an 'impossible' porosity is in fact made (the way Goldberger does, for instance), how is this contradiction resolved? Exactly what is picked first, the X value, the R value, the element or the porosity? Which are later picked? Which are then generated by immutable mathematical formulae? And if everything is predetermined in advance, why go through all the mathematics, if there is only one path and answer?

C) The specification states that figs. 1 and 2 shows a verified experiment, however fig. 2 shows pores not predicted by the formula. Also, there is nothing which states what the initial 'desired porosity was' (was the desired target met?) and why Ti was chosen. Therefore, this example does not in fact prove the present process valid in what it purports. Lastly, fig. 1 says '.8 nm' but fig. 2 shows a peak on the order of 1 **micron**. Therefore, the two are not in agreement.

Applicant's arguments filed through 4/7/03 have been fully considered but they are not persuasive.

Describing a system using a formula is not per se patentable. At the very least, claim 24 should delete 'desired' because use of this term implies that chemicals will respond to the will of the experimentor. As the equation does not depend upon the technique, arguments about the technique are irrelevant. The arguments at bottom of pg. 9 are noted; the claims however do not reflect this. The claims recite the ability to make any wished-for porosity ('desired') and do recite much of the periodic table. Concerning fig. 2, a pore is a pore and the equation does not discriminate among them.

The showing requested is noted. The failure of the equation to predict Cr is noted. The failure to point out an element which makes a pore size of the requested 2.6 nm is also noted.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to examiner Hendrickson at telephone number (703) 308-2539.

Stuart Hendrickson
examiner Art Unit 1754